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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/750,456

DATE: 10/18/2001
TIME: 09:18:58

Input Set : A:\lex286usa SEQLIST.TXT
Output Set: N:\CRF3\10182001\I750456.raw

ENTERED

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4 <110> APPLICANT: Friedrich, Glenn
5      Zambrowicz, Brian
6      Sands, Arthur T.
8 <120> TITLE OF INVENTION: Novel Mutated Mammalian Cells and Animals
10 <130> FILE REFERENCE: LEX-0286-USA
C--> 12 <140> CURRENT APPLICATION NUMBER: US/09/750,456
C--> 12 <141> CURRENT FILING DATE: 2000-11-30
12 <150> PRIOR APPLICATION NUMBER: US 09/728,445
13 <151> PRIOR FILING DATE: 2000-11-30
15 <150> PRIOR APPLICATION NUMBER: US 60/168,358
16 <151> PRIOR FILING DATE: 1999-12-01
18 <160> NUMBER OF SEQ ID NOS: 891
20 <170> SOFTWARE: FastSEQ for Windows Version 4.0
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23 <211> LENGTH: 449
24 <212> TYPE: DNA
25 <213> ORGANISM: Mus musculus
27 <220> FEATURE:
28 <221> NAME/KEY: misc_feature
29 <222> LOCATION: (1)...(449)
30 <223> OTHER INFORMATION: n = A,T,C or G
32 <400> SEQUENCE: 1
W--> 33 aggccttgaa gagatccgca aatgtggant gaaaaacttc cgnaacatcc aggntgatga      60
34 ggctaattta ttgacttggc aagggttat tgttcctgac aaccctccat atgataaggg      120
35 agccttcaga attgaaatca actttccagc agagtatcca ttcaaaccac ccaagatcac      180
36 atttaaaaca aagatctacc accctaacat cgatgagaag gggcaggtct gtctgccagt      240
37 cattagtgtc gaaaactgga agccagccac caagactgac caagtaatcc agtccctcat      300
38 agcactggtg aatgaccccc agcctgagca cccactccgg gctgacctag ctgaagaata      360
39 ctctaaggac cgtaaaaaat tctgtaagaa tgctgaagag tttacaaaga aatatgggga      420
40 aaaagccgac ctggggggtt aaaatctgc      449
42 <210> SEQ ID NO: 2
43 <211> LENGTH: 397
44 <212> TYPE: DNA
45 <213> ORGANISM: Mus musculus
47 <220> FEATURE:
48 <221> NAME/KEY: misc_feature
49 <222> LOCATION: (1)...(397)
50 <223> OTHER INFORMATION: n = A,T,C or G
52 <400> SEQUENCE: 2
W--> 53 atttgccagc tgaaggcatt tacattcgga gttccgcgga ctcttcanag gctgtaaaaa      60
W--> 54 tgccggagtc acnaaagcct gcaaaaagct gttgcttgcc ttgctgctgc tgctgctact      120
55 gccgtccctg cccgtgctgc aagctgctac tctgctgctg gctgctgctg cttgttgctg      180
56 attgttgctg ttgctggttg ctgtttactg tttgctgccg gctggattgc tggattgctg      240
W--> 57 attgccagtc gggnaaatcc tggnnataaa aatccanctt gcccanaaaa acangacnac      300
W--> 58 cctnnaggaa gtattctaata gatttcaatn cgccctttcc cctctnacc tttctctctt      360
59 accttatgct gggggattgg aagggtggca aaaaaaa      397
61 <210> SEQ ID NO: 3
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62 <211> LENGTH: 285
63 <212> TYPE: DNA
64 <213> ORGANISM: Mus musculus
66 <220> FEATURE:
67 <221> NAME/KEY: misc_feature
68 <222> LOCATION: (1)...(285)
69 <223> OTHER INFORMATION: n = A,T,C or G
71 <400> SEQUENCE: 3
W--> 72 gatggagaaa ctgaggttcc gcatngaanc aggetgattc agacctcgt gccactgagt      60
73 atgagaccac ctggggtgaa acttagatgg ctctattgtt ctgtcacctg ccgccactcc      120
74 tctccaagac actgttacct gcccttgaga tattccggag acagcatccc gcagatcacc      180
75 tacaggctgg cgacaggcac caagaatgga ttggtggggg atgggectec cctctttata      240
76 cgcacagagt cttagtaaatt tttgggtcct tgaacagaaa aaaaaa      285
78 <210> SEQ ID NO: 4
79 <211> LENGTH: 287
80 <212> TYPE: DNA
81 <213> ORGANISM: Mus musculus
83 <220> FEATURE:
84 <221> NAME/KEY: misc_feature
85 <222> LOCATION: (1)...(287)
86 <223> OTHER INFORMATION: n = A,T,C or G
88 <400> SEQUENCE: 4
W--> 89 caggagtaac aagtgtggag gtcnaaggan aactcttgga atctcttcta tcctatcaca      60
W--> 90 tcngtctcag gcatcnaaca tgggccaaact cctcaaactt ggtancctgg nacttnaata      120
W--> 91 nccatcttan tgctcaaaaa aggtttctcc tatgaagacc gtgtnctctg gctgtcctag      180
W--> 92 aatttgctgt gcnnaccaac ctggcctnna actcataaac ntttacctgc ctctgcctct      240
W--> 93 aaagtgttgg gattnaaagc atttcccact atgtaacaaa caaaaaa      287
95 <210> SEQ ID NO: 5
96 <211> LENGTH: 417
97 <212> TYPE: DNA
98 <213> ORGANISM: Mus musculus
100 <220> FEATURE:
101 <221> NAME/KEY: misc_feature
102 <222> LOCATION: (1)...(417)
103 <223> OTHER INFORMATION: n = A,T,C or G
105 <400> SEQUENCE: 5
W--> 106 cgeccatcct aaattcctag cttgctcggg gtaggagntt cctgttcatt cgttctgata      60
W--> 107 nncccactgn tgaaaactga ggngccacac tcgtatcnct ntnacngga cctaacatta      120
W--> 108 ttcgggangg aactctgggc cncnccecca tcnttcaatn nnnntgtcgt ggngattggn      180
W--> 109 ttngaaccnt gntcagnata aagctgaaaa aaacccatt gnetnncatt tncaccanga      240
W--> 110 ccgggaagng tntnatatcn aggatccgaa taaggctctt caaggcttct ttgaccgaga      300
W--> 111 aggagaaanag ttagaatatg aatttgatga gcnaggacac atcacttggc tctgcagggt      360
W--> 112 gaggttacct gtagatgatt cnnctgggaa acagctggtg gctgaggcca ttcactc      417
114 <210> SEQ ID NO: 6
115 <211> LENGTH: 173
116 <212> TYPE: DNA
117 <213> ORGANISM: Mus musculus
119 <400> SEQUENCE: 6
120 gtctagaatg tatgtgccaat gctgggaaca ggctggatc gtctgcaaga gcagccatcg      60

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121 gtcttagctg ctaactcctc tctcagtcga ttttgaatac gattctgagg tgacgcttcc 120
122 ctgtcaccac ccttaacatg ctctcatcgt accctctggt caaataaaaa aaa 173
124 <210> SEQ ID NO: 7
125 <211> LENGTH: 167
126 <212> TYPE: DNA
127 <213> ORGANISM: Mus musculus
129 <220> FEATURE:
130 <221> NAME/KEY: misc_feature
131 <222> LOCATION: (1)...(167)
132 <223> OTHER INFORMATION: n = A,T,C or G
134 <400> SEQUENCE: 7
W--> 135 tctagatgta tgtgccatgc tgggaaccan gcctggatcg tctgcaagag cagncatcgg 60
W--> 136 tcttagntgc taactcctct ctcagtcgat ttgaatacna ttctgagggt acgcttcct 120
W--> 137 gtcgncaccc ttaacatgct ctcatcgtac cctctgaaaa aaaaaaa 167
139 <210> SEQ ID NO: 8
140 <211> LENGTH: 191
141 <212> TYPE: DNA
142 <213> ORGANISM: Mus musculus
144 <220> FEATURE:
145 <221> NAME/KEY: misc_feature
146 <222> LOCATION: (1)...(191)
147 <223> OTHER INFORMATION: n = A,T,C or G
149 <400> SEQUENCE: 8
W--> 150 attctccatc cacaaattat gcagtcaagt ttcctcnaat ttgggggtcaa tacacacaga 60
151 gtgcaatgga tgaacctcgc tctggagaaa tcacctgcat aatcatggta tttccccttc 120
W--> 152 caggatttat acanaagcag ttttccaaat tctgaaacct gatgcccatc acatactttg 180
153 ggctgagaaa a 191
155 <210> SEQ ID NO: 9
156 <211> LENGTH: 157
157 <212> TYPE: DNA
158 <213> ORGANISM: Mus musculus
160 <220> FEATURE:
161 <221> NAME/KEY: misc_feature
162 <222> LOCATION: (1)...(157)
163 <223> OTHER INFORMATION: n = A,T,C or G
165 <400> SEQUENCE: 9
W--> 166 ggtctagatt atgtgcatgc tgggaacaag cctggatcgt ctgcaagagc agncatcgg 60
W--> 167 cttagctgct aactcctctc tcagtcgatn tgaataacga ttctgagggt acgcttcct 120
W--> 168 gtcnncaccc ttaacatgct ctcatcgtac cctctga 157
170 <210> SEQ ID NO: 10
171 <211> LENGTH: 273
172 <212> TYPE: DNA
173 <213> ORGANISM: Mus musculus
175 <220> FEATURE:
176 <221> NAME/KEY: misc_feature
177 <222> LOCATION: (1)...(273)
178 <223> OTHER INFORMATION: n = A,T,C or G
180 <400> SEQUENCE: 10
181 ggaatacaaa gggccagggt ccggtgcgt ctctggatc ttgagctgac atctaggttc 60

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W--> 182 ctgggtggga ccacaaatnc aactatactg gaggctgatg canttctctt aggactccaa 120
      183 gagatcaggg actcaaaatc aagagaggag caaccagca agtaatggac tgcgcttgct 180
      184 gtatttgaac ccattttgag ccagaaaac tataaataaa taaataattg aataaattta 240
W--> 185 tnataaatga aaagtaatcc tgtaaaaaaa aaa 273
      187 <210> SEQ ID NO: 11
      188 <211> LENGTH: 370
      189 <212> TYPE: DNA
      190 <213> ORGANISM: Mus musculus
      192 <220> FEATURE:
      193 <221> NAME/KEY: misc_feature
      194 <222> LOCATION: (1)...(370)
      195 <223> OTHER INFORMATION: n = A,T,C or G
      197 <400> SEQUENCE: 11
      198 actgaggtga cctttgaaag ttaacagggg tgccatgggc tgagtaagat aaacggaact 60
      199 gctgttcaac cccgccagct ctggggatga gtcattgttt tcaaatttat gaacaaagca 120
      200 cacaaattaa gaataataca agcaagaaac agcagagaga cacaaaagga catagaatcc 180
      201 ctgatactca ctgtgatctg gtaacactag ttctagggct ggagagagag atgctcaggg 240
      202 caagtgtctt tacagagaac atgagttcaa ttcccagaac ccacatggta cctcacaact 300
W--> 203 gcctatttca tacatgtggg gcagaacacc gatacacata cttttttttt taanaattga 360
      204 aaaaaaaaaa 370
      206 <210> SEQ ID NO: 12
      207 <211> LENGTH: 448
      208 <212> TYPE: DNA
      209 <213> ORGANISM: Mus musculus
      211 <220> FEATURE:
      212 <221> NAME/KEY: misc_feature
      213 <222> LOCATION: (1)...(448)
      214 <223> OTHER INFORMATION: n = A,T,C or G
      216 <400> SEQUENCE: 12
W--> 217 ctcttttagt gagacngccc taggcagacc acntacentt acccttctga aatctcggta 60
W--> 218 ctggaggatc tnggccngga tcctgatacc cccattgccc ccttagcnac ccatactgac 120
W--> 219 naggaggagg aggaggagga ggaagaggag gagttgcttc tgengcctgg gctccagggc 180
W--> 220 gggctgcgca ccaaggccct antcgtggat gantcctgcc ggcgggtgacc atcttccant 240
      221 ttgggcgcat acctccttcc ttcttctctt cccgtacctg aagcttctgg agtctggatg 300
W--> 222 attcanagcc gacanacctg gcngggatcc tgcttggcag ggaagggggg tganentntt 360
W--> 223 ctgacttgct ttteccatcc catttctggg gcnnancnt tatectaaat ttaccctaa 420
      224 ctcatggtgt ttcccgtggg tgacctaa 448
      226 <210> SEQ ID NO: 13
      227 <211> LENGTH: 394
      228 <212> TYPE: DNA
      229 <213> ORGANISM: Mus musculus
      231 <220> FEATURE:
      232 <221> NAME/KEY: misc_feature
      233 <222> LOCATION: (1)...(394)
      234 <223> OTHER INFORMATION: n = A,T,C or G
      236 <400> SEQUENCE: 13
W--> 237 tcctgatact gcttgntngg ggtagagctn cctgctenta cnttctgccn naccnнатgc 60
W--> 238 tggaacctga gnacnacat aattgcacct tctcttctgg accagacatt attcggcggg 120
W--> 239 aatcgggtcc ccacccctg acgtcatacc tgggtgtctca nccnnngnat ttgaactgtg 180

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Input Set : A:\lex286usa SEQLIST.TXT

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W--> 240 atcatctgag ccaaaatann ccaaagtata naagtcaaca aaggcaanat gctgnanatn      240
W--> 241 aaatggaaaa ccantcattg anaacatcat cncctctntn ctccgaggac ncttcggtgc      300
W--> 242 ggatctggga tatcccnan ggtgggctga aacggaacnt naccgaggga ctccctggagc      360
W--> 243 tcnatggana catgcgccat gtggggctgg tgga                                  394
245 <210> SEQ ID NO: 14
246 <211> LENGTH: 461
247 <212> TYPE: DNA
248 <213> ORGANISM: Mus musculus
250 <220> FEATURE:
251 <221> NAME/KEY: misc_feature
252 <222> LOCATION: (1)...(461)
253 <223> OTHER INFORMATION: n = A,T,C or G
255 <400> SEQUENCE: 14
W--> 256 cgcaccggat tgggcagcan taacnacact gcaanaggan cctnctgcac acgtttattg      60
W--> 257 gganagtntg attgnagagg tgannagacc cggagcccaa aactgggtgc gcttatatag      120
W--> 258 gcctangaga ggantgtctc acacctggat tggttatgca ctacgcctca tttgcatgat      180
W--> 259 cctcatctga ttggctactc tctctctgta cctcaciaag cctcattntc atacctcatt      240
W--> 260 tgcattgtctc acacctgatt ggttatantc tccaaacccc ctttatcctg cccggggcnn      300
W--> 261 gcantgtctt tgcaaaaaac tttactgcat atgttcacat tgggtgtttg tccaaactta      360
W--> 262 tgcgtgggtg ccancagtan tcagtgccac tctgcaacgg cacntgtggc ttcccacatc      420
263 tccccctttt tgttttaata aaatgaggct gggactaggc c                                  461
265 <210> SEQ ID NO: 15
266 <211> LENGTH: 301
267 <212> TYPE: DNA
268 <213> ORGANISM: Mus musculus
270 <400> SEQUENCE: 15
271 aagtgttccc taagaagggt gtcaccctga cggaagaacg gaaagcccaa cagctccagc      60
272 gcctcctgga catgaagagc aacccatac agggcctggc tgcccactgg gattatgaaa      120
273 agaaggagtg gaaaaagtga ccaacgtccc acgtctgccg ccagcccctg caaactgctt      180
274 ctgcagccca ggagacaatc atcccctccc ctcccctccc ctcccctccc ctccctgagtc      240
275 ctgtctccac tcccttctcc aataaaagca gcctgctttg ttctgcttgc aaaaaaaaaa      300
276 a                                  301
278 <210> SEQ ID NO: 16
279 <211> LENGTH: 285
280 <212> TYPE: DNA
281 <213> ORGANISM: Mus musculus
283 <220> FEATURE:
284 <221> NAME/KEY: misc_feature
285 <222> LOCATION: (1)...(285)
286 <223> OTHER INFORMATION: n = A,T,C or G
288 <400> SEQUENCE: 16
W--> 289 aggttcctaa aatcanactc tgtcatcggn aagtgnagac tgtaacaaac tgggaccctc      60
W--> 290 acatgccnat aagcantcaa aaatattnnc tgggagctgg ananatgggc tcagcagtta      120
W--> 291 aaaacactga ctgctcttcc ggangtcctg tgttcaaate ccagcaacca cagggttaact      180
W--> 292 cacaaccatc tgtaatgana tctgatgcc tcttcgggtg tgtctnaaaa cagctacagt      240
293 gtccttacat ataataaata aataaatctt tttttttaaa gaata                                  285
295 <210> SEQ ID NO: 17
296 <211> LENGTH: 100
297 <212> TYPE: DNA

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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/750,456

DATE: 10/18/2001

TIME: 09:18:59

Input Set : A:\lex286usa SEQLIST.TXT

Output Set: N:\CRF3\10182001\I750456.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application No
L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:33 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:53 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:54 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:57 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:58 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:72 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:89 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:90 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:91 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:92 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:93 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:106 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:107 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:108 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:109 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:110 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:111 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:112 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:135 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:136 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:137 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:150 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:152 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:166 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:167 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:168 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:182 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:185 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:203 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:217 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:218 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:219 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:220 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:222 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:223 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:237 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:238 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:239 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:240 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:241 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:242 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:243 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:256 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:257 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:258 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:259 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14

VERIFICATION SUMMARY

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Input Set : A:\lex286usa SEQLIST.TXT

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L:260 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:261 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:262 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:289 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16